

Career Pathway: Plant Systems							
Get the Facts		CAREER AND TECHNICAL EDUCATION				18	Careers in Agriculture are: <ul style="list-style-type: none">• High demand/High skill/High wage
		Recommended Pathway Courses					
Workforce Trends		Students may select individual courses for exploration or a complete Pathway for an in-depth focus				<div>1.0 credit</div> <div>1.0 credit</div> <div>2.0 credits for completion</div>	Career Examples <ul style="list-style-type: none">•
		CLASS AVAILABILITY MAY VARY AT YOUR SCHOOL					
		Course #	Foundation Courses (required)		Credit		
		18001	Introduction to Agriculture (Ag I)		.5/1.0		
		18051	Plant Production/ Science		.50/1.0		
		18052	General Horticulture		.05/1.0		
		18302	Agriculture and Society		.50/1.0		
			Elective Courses				
		18002	Agriculture- Comprehensive (Ag II)		.50/1.0		
		18053	Ornamental Horticulture		0.5/1.0		
		18054	Turf and Landscape Management		0.5/1.0		
		18055	Soil Science		.50/1.0		
		18203	Agricultural Leadership		0.5/1.0		
		18202	Agricultural Entrepreneurship		0.5/1.0		
		18098	Plant Systems-Workplace Experience (SAE)		.50/1.0		
		Foundation courses taken beyond the required credits can be used as elective credit. Additional CTE Credits are recommended for Pathway completion					
State Graduation Requirements		Suggested High School Plan of Study				College and Career	
High School		9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested	Beyond High School There are many options for education and training beyond high school, depending on your career goals. <ul style="list-style-type: none">• Certificate• Associate degree• Bachelor's degree• Professional degree• On-the-job training• Apprenticeship• Military training For more information on salary projections, labor market demand, and training options, visit lmi.mt.gov .	
Administrative Rules of Montana 10.55.905							
English/Language Arts	4.0	English 9 1.0	English 10 1.0	English 11 1.0	English 12 1.0		
Mathematics	2.0	Math* 1.0	Math* 1.0	Math* 1.0	Math* 1.0		
Social Studies	2.0	Social Studies* .50/1.0	Social Studies* .50/1.0	U.S History 1.0	U.S. Government 1.0		
Science	2.0	Earth Science 1.0	Biology 1.0	Science Elective*			
Health Enhancement	1.0	P.E./Health* .50	P.E./Health* .50	P.E./Health Electives*			
Arts	1.0	Arts Courses* 1.0					
Career and Technical Education	1.0	Pathway Foundation Course .50/1.0	Pathway Foundation Course .50/1.0	Pathway Elective Course .50/1.0	Pathway Elective Course .50/1.0		
Work-Based Learning		Participation in a Pathway-related work-based learning experience					
Career and Technical Student Organization		National FFA Organization					
<ul style="list-style-type: none">• *Talk to your school counselor about requirements in the core curriculum. Core curriculum and elective requirements vary district to district.• Many CTE courses may qualify for dual enrollment credit, which in some cases may earn up to 1.0 credit toward Pathway completion. Talk to your school counselor about availability.		<ul style="list-style-type: none">• Dual enrollment course offerings vary by school and district.• Many Montana post-secondary programs accept high school courses toward a two- and four-year degree through dual enrollment. Check with post-secondary campuses for details.					



MONTANA CAREER PATHWAYS

Career and Technical Education



Area of Study: Agriculture, Food and Natural Resources

Career Pathway: Animal Systems						
Get the Facts		CAREER AND TECHNICAL EDUCATION			18	Careers in Agriculture are: <ul style="list-style-type: none">• High demand/High skill/High wage
		Recommended Pathway Courses				
Workforce Trends		Students may select individual courses for exploration or a complete Pathway for an in-depth focus			<div>1.0 credit</div> <div>1.0 credit</div> <div>2.0 credits for completion</div>	Career Examples <ul style="list-style-type: none">• <p>According to the Montana Department of Labor and Industry, the median hourly wage for occupations within Business and Finance Operations is \$26.30.</p>
		CLASS AVAILABILITY MAY VARY AT YOUR SCHOOL				
		Course #	Foundation Courses (required)	Credit		
		18001	Introduction to Agriculture (Ag I)	.5/1.0		
		18002	Agriculture- Comprehensive (Ag II)	.50/1.0		
		18101	Animal Production/Science	0.5/1.0		
		18302	Agriculture and Society	.50/1.0		
		Elective Courses				
		18102	Small Animal Care	.50/1.0		
		18103	Large Animal Care	.50/1.0		
		18104	Equine Science	.50/1.0		
		18105	Veterinary Science	.50/1.0		
		18203	Agricultural Leadership	.50/1.0		
		18202	Agricultural Entrepreneurship	0.5/1.0		
	18148	Animal Systems-Workplace Experience (SAE)	.50/1.0			
Foundation courses taken beyond the required credits can be used as elective credit. Additional CTE Credits are recommended for Pathway completion						
State Graduation Requirements		Suggested High School Plan of Study				College and Career
High School Administrative Rules of Montana 10.55.905		9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested	Beyond High School
English/Language Arts	4.0	English 9 1.0	English 10 1.0	English 11 1.0	English 12 1.0	There are many options for education and training beyond high school, depending on your career goals. <ul style="list-style-type: none">• Certificate• Associate degree• Bachelor's degree• Professional degree• On-the-job training• Apprenticeship• Military training <p>For more information on salary projections, labor market demand, and training options, visit lmi.mt.gov.</p>
Mathematics	2.0	Math* 1.0	Math* 1.0	Math* 1.0	Math* 1.0	
Social Studies	2.0	Social Studies* .50/1.0	Social Studies* .50/1.0	U.S History 1.0	U.S. Government 1.0	
Science	2.0	Earth Science 1.0	Biology 1.0	Science Elective*		
Health Enhancement	1.0	P.E./Health* .50	P.E./Health* .50	P.E./Health Electives*		
Arts	1.0	Arts Courses* 1.0				
Career and Technical Education	1.0	Pathway Foundation Course .50/1.0	Pathway Foundation Course .50/1.0	Pathway Elective Course .50/1.0	Pathway Elective Course .50/1.0	
Work-Based Learning		Participation in a Pathway-related work-based learning experience				
Career and Technical Student Organization		National FFA Organization				
<ul style="list-style-type: none">• *Talk to your school counselor about requirements in the core curriculum. Core curriculum and elective requirements vary district to district.• Many CTE courses may qualify for dual enrollment credit, which in some cases may earn up to 1.0 credit toward Pathway completion. Talk to your school counselor about availability.		<ul style="list-style-type: none">• Dual enrollment course offerings vary by school and district.• Many Montana post-secondary programs accept high school courses toward a two- and four-year degree through dual enrollment. Check with post-secondary campuses for details.				

Career Pathway: Agribusiness						
Get the Facts		CAREER AND TECHNICAL EDUCATION			18	Careers in Agriculture are: <ul style="list-style-type: none">• High demand/High skill/High wage
		Recommended Pathway Courses				
Workforce Trends		Students may select individual courses for exploration or a complete Pathway for an in-depth focus			<div>1.0 credit</div> <div>1.0 credit</div> <div>2.0 credits for completion</div>	Career Examples <ul style="list-style-type: none">•
		CLASS AVAILABILITY MAY VARY AT YOUR SCHOOL				
		Course #	Foundation Courses (required)	Credit		
		18001	Introduction to Agriculture (Ag I)	.5/1.0		
		18201	Agribusiness Management	.50/1.0		
		18302	Agriculture and Society	.50/1.0		
		Elective Courses				
		18002	Agriculture- Comprehensive (Ag II)	.50/1.0		
		18202	Agricultural Entrepreneurship	0.5/1.0		
		18203	Agricultural Leadership	0.5/1.0		
		18302	Agricultural Processing	0.5/1.0		
		18303	Plant Processing	0.5/1.0		
		18304	Animal Processing	0.5/1.0		
		18305	Food Products and Processing	0.5/1.0		
		18248	Agribusiness-Workplace Experience (SAE)	.50/1.0		
		Foundation courses taken beyond the required credits can be used as elective credit. Additional CTE Credits are recommended for Pathway completion				
State Graduation Requirements		Suggested High School Plan of Study				College and Career
High School Administrative Rules of Montana 10.55.905		9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested	Beyond High School There are many options for education and training beyond high school, depending on your career goals. <ul style="list-style-type: none">• Certificate• Associate degree• Bachelor's degree• Professional degree• On-the-job training• Apprenticeship• Military training For more information on salary projections, labor market demand, and training options, visit lmi.mt.gov .
English/Language Arts	4.0	English 9 1.0	English 10 1.0	English 11 1.0	English 12 1.0	
Mathematics	2.0	Math* 1.0	Math* 1.0	Math* 1.0	Math* 1.0	
Social Studies	2.0	Social Studies* .50/1.0	Social Studies* .50/1.0	U.S History 1.0	U.S. Government 1.0	
Science	2.0	Earth Science 1.0	Biology 1.0	Science Elective*		
Health Enhancement	1.0	P.E./Health* .50	P.E./Health* .50	P.E./Health Electives*		
Arts	1.0	Arts Courses* 1.0				
Career and Technical Education	1.0	Pathway Foundation Course .50/1.0	Pathway Foundation Course .50/1.0	Pathway Elective Course .50/1.0	Pathway Elective Course .50/1.0	
Work-Based Learning		Participation in a Pathway-related work-based learning experience				
Career and Technical Student Organization		National FFA Organization				
<ul style="list-style-type: none">• *Talk to your school counselor about requirements in the core curriculum. Core curriculum and elective requirements vary district to district.• Many CTE courses may qualify for dual enrollment credit, which in some cases may earn up to 1.0 credit toward Pathway completion. Talk to your school counselor about availability.		<ul style="list-style-type: none">• Dual enrollment course offerings vary by school and district.• Many Montana post-secondary programs accept high school courses toward a two- and four-year degree through dual enrollment. Check with post-secondary campuses for details.				



Career Pathway: Agricultural Mechanics and Construction

Career Pathway: Agricultural Mechanics and Construction						
Get the Facts	Workforce Trends	CAREER AND TECHNICAL EDUCATION Recommended Pathway Courses			18	Careers in Agriculture are: <ul style="list-style-type: none">• High demand/High skill/High wage Career Examples <ul style="list-style-type: none">• Welding• Agriculture Equipment Sales& Service• Agricultural Equipment Service•
		Students may select individual courses for exploration or a complete Pathway for an in-depth focus				
CLASS AVAILABILITY MAY VARY AT YOUR SCHOOL						
Course #		Foundation Courses (required)	Credit			
18001		Introduction to Agriculture (Ag I)	.5/1.0			
18401		Agricultural Mechanics, Equipment and Structures	.50/1.0			
18302		Agriculture and Society	.50/1.0			
Elective Courses						
18402		Agricultural Mechanics and Equipment	.50/1.0			
18403		Agricultural Structures	0.5/1.0			
18404		Agricultural Welding	0.5/1.0			
18203		Agricultural Leadership	0.5/1.0			
18202		Agricultural Entrepreneurship	0.5/1.0			
18448		Agricultural Mechanics and Construction-Workplace Experience (SAE)	.50/1.0			
Foundation courses taken beyond the required credits can be used as elective credit. Additional CTE Credits are recommended for Pathway completion			2.0 credits for completion			
State Graduation Requirements		Suggested High School Plan of Study				
High School Administrative Rules of Montana 10.55.905		9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested	Beyond High School
English/Language Arts	4.0	English 9 1.0	English 10 1.0	English 11 1.0	English 12 1.0	There are many options for education and training beyond high school, depending on your career goals. <ul style="list-style-type: none">• Certificate• Associate degree• Bachelor's degree• Professional degree• On-the-job training• Apprenticeship• Military training For more information on salary projections, labor market demand, and training options, visit lmi.mt.gov .
Mathematics	2.0	Math* 1.0	Math* 1.0	Math* 1.0	Math* 1.0	
Social Studies	2.0	Social Studies* .50/1.0	Social Studies* .50/1.0	U.S History 1.0	U.S. Government 1.0	
Science	2.0	Earth Science 1.0	Biology 1.0	Science Elective*		
Health Enhancement	1.0	P.E./Health* .50	P.E./Health* .50	P.E./Health Electives*		
Arts	1.0	Arts Courses* 1.0				
Career and Technical Education	1.0	Pathway Foundation Course .50/1.0	Pathway Foundation Course .50/1.0	Pathway Elective Course .50/1.0	Pathway Elective Course .50/1.0	
Work-Based Learning		Participation in a Pathway-related work-based learning experience				
Career and Technical Student Organization		National FFA Organization				
• *Talk to your school counselor about requirements in the core curriculum. Core curriculum and elective requirements vary district to district. • Many CTE courses may qualify for dual enrollment credit, which in some cases may earn up to 1.0 credit toward Pathway completion. Talk to your school counselor about availability.		• Dual enrollment course offerings vary by school and district. • Many Montana post-secondary programs accept high school courses toward a two- and four-year degree through dual enrollment. Check with post-secondary campuses for details.				

Career Pathway: Natural Resources						
Get the Facts		CAREER AND TECHNICAL EDUCATION				Careers in Finance are:
		Recommended Pathway Courses				
Workforce Trends		Students may select individual courses for exploration or a complete Pathway for an in-depth focus			1.0 credit	• High demand/High skill/High wage
		CLASS AVAILABILITY MAY VARY AT YOUR SCHOOL				
		Course #	Foundation Courses (required)	Credit		
		18001	Introduction to Agriculture (Ag I)	.5/1.0		
		18002	Agriculture- Comprehensive (Ag II)	.50/1.0		
		18501	Wildlife Management	0.5/1.0		
		18302	Agriculture and Society	.50/1.0		
		Elective Courses				
		18502	Forestry	.50/1.0		
		18503	Forest Harvesting	.50/1.0		
		18504	Natural Resources Management	.50/1.0		
		18203	Agricultural Leadership	.50/1.0		
		18202	Agricultural Entrepreneurship	.50/1.0		
		18998	Agriculture, Food, and Natural Resources-Workplace Experience (SAE)	.50/1.0		
		Foundation courses taken beyond the required credits can be used as elective credit. Additional CTE Credits are recommended for Pathway completion			2.0 credits for completion	
State Graduation Requirements		Suggested High School Plan of Study				College and Career
High School Administrative Rules of Montana 10.55.905		9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested	Beyond High School
English/Language Arts	4.0	English 9 1.0	English 10 1.0	English 11 1.0	English 12 1.0	There are many options for education and training beyond high school, depending on your career goals. <ul style="list-style-type: none">• Certificate• Associate degree• Bachelor’s degree• Professional degree• On-the-job training• Apprenticeship• Military training
Mathematics	2.0	Math* 1.0	Math* 1.0	Math* 1.0	Math* 1.0	
Social Studies	2.0	Social Studies* .50/1.0	Social Studies* .50/1.0	U.S History 1.0	U.S. Government 1.0	
Science	2.0	Earth Science 1.0	Biology 1.0	Science Elective*		
Health Enhancement	1.0	P.E./Health* .50	P.E./Health* .50	P.E./Health Electives*		
Arts	1.0	Arts Courses* 1.0				
Career and Technical Education	1.0	Pathway Foundation Course .50/1.0	Pathway Foundation Course .50/1.0	Pathway Elective Course .50/1.0	Pathway Elective Course .50/1.0	
Work-Based Learning		Participation in a Pathway-related work-based learning experience				
Career and Technical Student Organization		Business Professionals of America/DECA				
<ul style="list-style-type: none">• *Talk to your school counselor about requirements in the core curriculum. Core curriculum and elective requirements vary district to district.• Many CTE courses may qualify for dual enrollment credit, which in some cases may earn up to 1.0 credit toward Pathway completion. Talk to your school counselor about availability.		<ul style="list-style-type: none">• Dual enrollment course offerings vary by school and district.• Many Montana post-secondary programs accept high school courses toward a two- and four-year degree through dual enrollment. Check with post-secondary campuses for details.				For more information on salary projections, labor market demand, and training options, visit lmi.mt.gov .

0134 Agricultural Experience Program

The Supervised Agricultural Experience program is a hands-on, student planned way for them to apply skills learned in the classroom to real world agricultural experiences. With help from their agricultural teachers, students develop an SAE project based on one or more SAE categories: Entrepreneurship, Placement, Research and Experimentation and Exploratory.

Ag Mechanics, Ag Construction, Ag woods and Metal, Small Gas Engines/Electrical Wiring/Welding, Metal Fabrication, Welding 1 &2, Ag Power, Project Construction, CAD, CAD 2, Woods, Ag Shop 1, OSHA, Ag Portable Engine Systems, Ag Welding Fabrications, Engine Systems in Agriculture, Principals of Agricultural Power 1. 2.

Horticulture, , Ag Greenhouse, Plant/Range Science,

Ag I-IV, Ag Tech I< II< III< IV, Ag Orientation, Advanced VO-Ag, Ag Communications, Agricultural Issues, FFA Career Development, Fundamentals of Agriculture, FFA Leadership, SAE,

Animal Science, Veterinary Science, Equine Science

Ag Marketing, Ag Business, Farm Management, Entrepreneurship

Natural Resources, Environmental Science, Natural Resources of Montana,

EXP AG, Publications, Ag Projects, Co-Op, Individual Studies, Individual Career Preparation, Ag Special Projects, , Principals of Agricultural Power 1. 2.